THE PENDING CLAIMS:

1. (Previously Presented) A method for processing a photolithographic reticle, comprising:

positioning the reticle on a support member in a processing chamber, wherein the reticle comprises a metal photomask layer formed on a silicon based substrate and a patterned resist material deposited on the metal photomask layer;

introducing a processing gas comprising carbon monoxide and chlorine gas into the processing chamber, wherein the carbon monoxide and the chlorine gas have a molar ratio between about 1:9 and about 9:1; and

delivering power to the processing chamber to generate a plasma and remove exposed portions of the metal photomask layer.

2. (Original) The method of claim 1, wherein the metal photomask layer comprises chromium, chromium oxynitride, or combinations thereof.

3. (Previously Presented) The method of claim 1, wherein the silicon based substrate comprises an optically transparent silicon based material selected from the group consisting of quartz, molybdenum silicide, molybdenum silicon oxynitride, and combinations thereof.

4. (Previously Presented) The method of claim 11, wherein the oxygen containing gas is selected from the group consisting of oxygen (O_2), carbon dioxide (CO_2), and combinations thereof.

5. (Previously Presented) The method of claim 1, wherein the processing gas further comprises an inert gas selected from the group consisting of helium, argon, xenon, neon, krypton, and combinations thereof.

6. (Previously Presented) The method of claim 1, wherein the processing gas further comprises a chlorine containing gas is selected from the group consisting of silicon tetrachloride ($SiCl_4$), boron trichloride (BCl_3), and combinations thereof.

7. (Previously Presented) The method of claim 1, wherein the carbon monoxide and the chlorine gas have a molar ratio of about 1:1.

8. (Original) The method of claim 1, wherein the metal photomask layer and the resist material are removed at a removal rate ratio of metal photomask layer to resist material of about 3:1 or greater.

9. (Original) The method of claim 1, wherein processing the reticle comprises introducing the processing gas into a processing chamber, maintaining the processing chamber at a pressure between about 2 milliTorr and about 25 milliTorr, maintaining the reticle at a temperature between about 50°C and about 150°C, and generating a plasma by supplying a source RF power between about 250 Watts and about 700 Watts to a coil to the processing chamber.

10. (Original) The method of claim 9, further comprising applying a bias power to the support member of about 50 Watts or less.

11. (Previously Presented) The method of claim 1, further comprising introducing an oxygen containing gas into the processing gas during etching of the metal layer.

12. (Original) The method of claim 11, wherein oxygen is added to the processing gas and comprises between about 5% and about 45% of the processing gas.

13. (Original) A method for processing a photolithographic reticle, comprising:

positioning the reticle on a support member in a processing chamber, wherein the reticle comprises a chromium based photomask layer formed on an optically

transparent silicon based material and a patterned resist material deposited on the chromium based photomask layer;

introducing a processing gas comprising carbon monoxide and chlorine gas, wherein the molar ratio between carbon monoxide and chlorine gas is about 1:1;

introducing an inert gas;

maintaining a chamber pressure between about 2 milliTorr and about 25 milliTorr;

delivering power to the processing chamber of about 700 watts or less to a coil disposed in the processing chamber to generate a plasma; and

etching exposed portions of the chromium based photomask layer and selectively removing the chromium based photomask layer at a removal rate ratio of chromium based photomask layer to resist material of about 3:1 or greater.

14. (Original) The method of claim 13, wherein the chromium based photomask layer comprises chromium, chromium oxynitride, or combinations thereof, and the optically transparent silicon based material comprises quartz, molybdenum silicide, molybdenum silicon oxynitride, or combinations thereof.

15. (Previously Presented) The method of claim 13, wherein the inert gas is selected from the group consisting of helium, argon, xenon, neon, krypton, and combinations thereof.

16. (Original) The method of claim 13, wherein etching the reticle comprises introducing carbon monoxide (CO), chlorine (Cl_2), and helium, into a processing chamber, maintaining the processing chamber at a pressure between about 5 milliTorr and about 20 milliTorr, maintaining the reticle at a temperature between about 50°C and about 150°C, and generating a plasma by supplying a source RF power between about 250 Watts and about 700 Watts to the processing chamber.

17. (Original) The method of claim 16, further comprising applying a bias power to the support member of about 50 Watts or less.

18. (Original) The method of claim 13, further comprising increasing the oxygen content of the processing gas during etching of the chromium based photomask layer by introducing an oxygen containing gas to comprise between about 5% and about 45% of the processing gas.

19. (Original) The method of claim 15, wherein the resist material and chromium based photomask layer are removed at a removal rate ratio of chromium based photomask layer to resist of about 7:1 or greater.

20. (Original) A method for processing a photolithographic reticle, comprising:

positioning the reticle on a support member in a processing chamber having a coil, wherein the reticle comprises a chromium based photomask layer formed on an optically transparent silicon based material and a patterned resist material deposited on the chromium based photomask layer;

introducing a processing gas comprising carbon monoxide, chlorine gas, and an oxygen-containing gas into the processing chamber, wherein the molar ratio between carbon monoxide and chlorine gas is about 1:1, and the oxygen-containing gas comprises between about 5% and about 45% of the processing gas;

introducing helium into the processing chamber;

generating a plasma in the processing chamber; and

etching exposed portions of the chromium based photomask layer and selectively removing the chromium based photomask layer at a removal rate ratio of chromium based photomask layer to resist material of about 3:1 or greater.

21. (Original) The method of claim 20, wherein the chromium based photomask layer comprises chromium, chromium oxynitride, or combinations thereof.

22. (Previously Presented) The method of claim 20, wherein the oxygen containing gas is selected from the group consisting of oxygen (O_2), carbon dioxide (CO_2), and combinations thereof.

23. (Original) The method of claim 20, wherein processing the reticle comprises introducing the processing gas into the processing chamber, maintaining the processing chamber at a pressure between about 2 milliTorr and about 25 milliTorr, maintaining the reticle at a temperature between about 50°C and about 150°C, generating a plasma by supplying a source RF power between about 250 Watts and about 700 Watts to a coil to the processing chamber, and supplying a bias power to the support member of about 50 Watts or less.

24. (Original) The method of claim 20, wherein the resist material and chromium based photomask layer are removed at a removal rate ratio of chromium based photomask layer to resist of about 7:1 or greater.